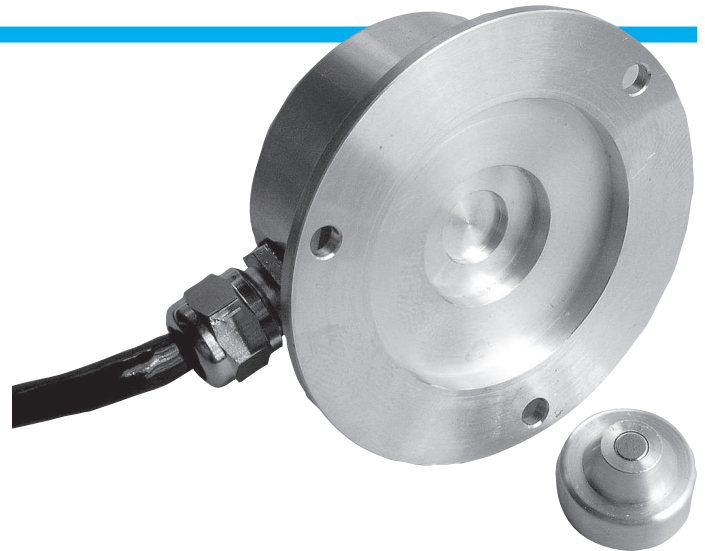


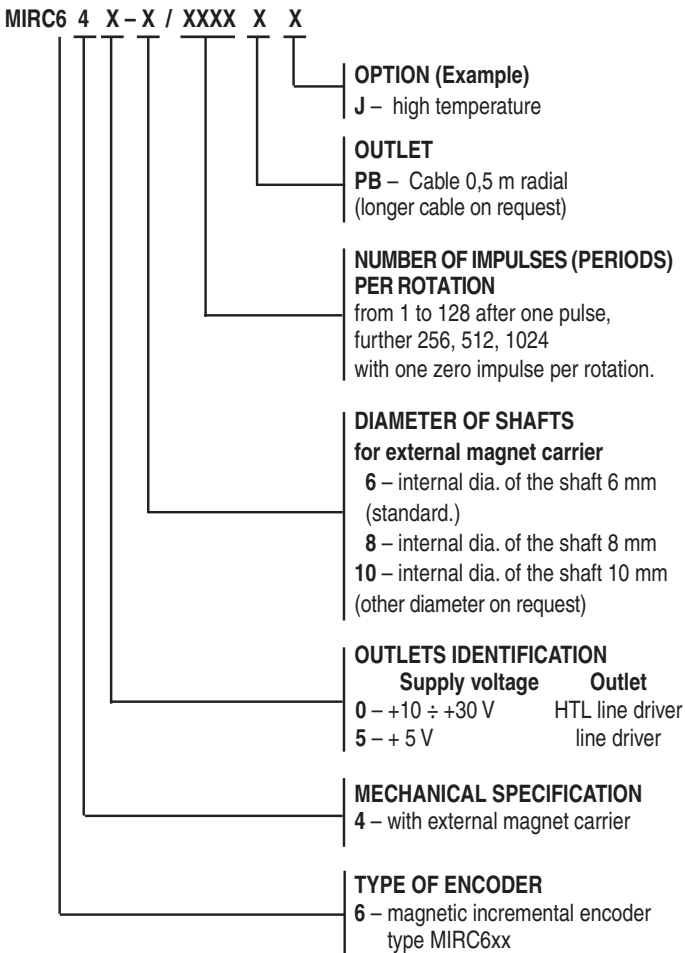
Magnetic incremental encoders MIRC640 and 645

MIRC64x – without a shaft with external magnet-carrier

The magnetic incremental rotary encoders MIRC640 and MIRC645 working on magnetic Hall Effect principle. The encoder converts rotary motion to electrical incremental signals. Mechanically is designed without a shaft with external magnet-carrier which is mounted on the shaft cooperating devices. A typical use is in conjunction with digital control system or drivers for control of the electric motors.



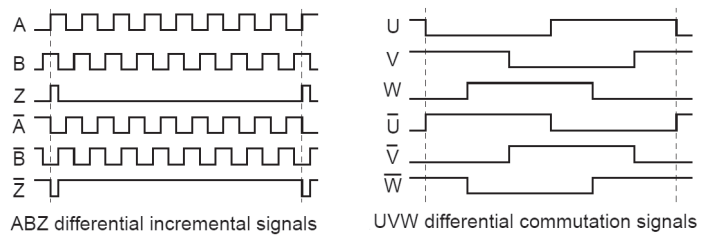
Type identification



Mechanical data and working conditions

Rotational speed max.	10000 min. ⁻¹
Vibration according to FCČSN345791	10g _n (10 to 2000 Hz)
Shock max.	50g _n (100 ms)
Diameter of shafts for external magnet carrier	
– standard	6 mm
– option	8 mm or 10 mm
Working temperature	
– standard	– 25° to + 80° C
– option	– 25° to + 125° C
Humidity relative / absolute	max. 95 % / max. 40g.m ⁻³
Atmosphere (without aggressive substances)	73,3 to 126,6 kPa
Type of protection	IP65
Weight ca. MIRC640 / MIRC645	0,15 kg
Length cable max.	50 m

Output signals MIRC640, 645



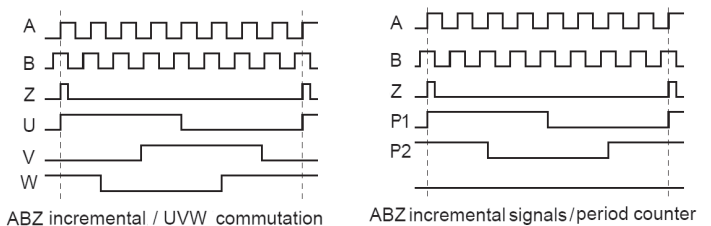
Number of incremental impulses (periods) per rotation: from 1 to 128 after one pulse, further 256, 512, 1024 with one zero impulse per rotation. Resolution in positions = Number impulses per rotation (lines) x 4.

Technical data

ELECTRICAL DATE / TYPE	MIRC640	MIRC645
Impulses (periods) per rotation	1 to 1024	
Resolution (positions per revolution) = impulses x 4	Up to 4096	
Supply voltage max. U _N (V)	from +10 to +30	+ 5 ± 5%
Supply current max. I _N (mA)	60@30V	50
Output frequency max. F _O (kHz)	200	
Output max. I _O (mA)	± 25	± 20
Output	HTL line driver	line driver (RS 422)

MIRC645

only and into resolution 1024 impulses (without 200, 250, 400 and 500 impulses)



Description of connection elements MIRC640 and 645

Colors of connection cable	Significance			
	Incremental	Commutation	Incr./commu.t.	Incr./counter
Grey	B non	V non	V	P2
Pink	Sensor + 10 to + 30 V for MIRC640 Sensor + 5 for MIRC645			
Blue	Z	W	Z	Z
Violet	Z non	W non	W	NC
Yellow	A	U	A	A
White	A non	U non	U	P1
-	NC			
Green	B	V	B	B
Shield	Shield			
Black	GND			
Brown	Sensor 0 V			
Red	$U_N + 10 V$ to + 30 V for MIRC640 $V_{cc} + 5 V$ for MIRC645			

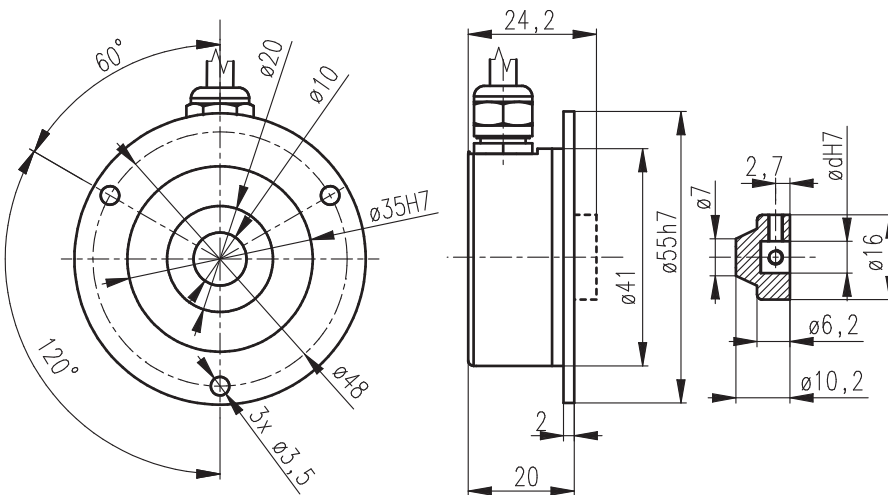
Assembly

The encoders MIRC640 and MIRC645 are fixed to cooperative equipment by three screws M3 on the pitch circle diameter 48 mm. First the magnet-carrier is mounted on the shaft so that dimension between top of magnet-carrier and equipment's flange must be $6,65 \pm 0,05$ mm. For this operation it is possible to use the assembly tool 62451631 which is possible to order as accessories. Centering of the encoder is by inner diameter 35H7 or outside diameter 55h7.

Note: The encoder is calibrated with its magnet-carrier and is paired with him. If another magnet or magnet-carrier will be used, the sensor accuracy will worsen.

When temperature is less than -5°C cable must be fixed.

Dimensioned drawing MIRC640 and MIRC645



How to order?

Please indicate encoder type, number of impulses per rotation, outlet, number of pieces, delivery term and other non-standard features. Connecting cable and homokinetic diaphragm couplings can be ordered as well [see Accessories catalogue list].

Example

15 pcs MIRC645-6/512PB and 3 pcs assembly tools. Delivery term – two weeks.

